

## REMARKS

Claims 1 – 18, 20, and 21 are in the application. Claims 1, 20, and 21 are currently amended; claims 3 – 5, 12, and 18 were previously presented; claim 19 is canceled; and claims 2, 6 – 11, and 13 – 17 remain unchanged from the original versions thereof. Claims 1, 20, and 21 are the independent claims herein.

No new matter has been added to the application as a result of the amendments submitted herewith. Support for the current claim amendments is provided in the Specification at paragraphs [0043] and [0074].

Reconsideration and further examination are respectfully requested herewith.

### **Claim Rejections – 35 USC § 102**

Claims 1, 7 – 16, and 18 were rejected under 35 U.S.C. 102(e) as being anticipated by Kowalski U.S. Publication No. 2003/0063563. This rejection is traversed.

Applicant notes that claim 1 relates to a method for providing a delay guarantee for each of a plurality of client devices associated with an access point, including classifying each of the plurality of client devices into one of a plurality of client device types based on, at least, a measurement of current and previous traffic loads for each of the plurality of client devices, and a determination of whether the client device is critical; determining a desired traffic load for the access point; and allocating shaper intervals to each of the plurality of client devices based on the client device type classification of each of the plurality of client devices and the desired traffic load of the access point, wherein the classifying, determining, and allocating are performed by the access point.

Thus, it is clear that Applicant claims (1) classifying each of the plurality of client devices into one of a plurality of client device types based on, at least, a measurement of current and previous traffic loads for each of said plurality of client devices, and a determination of whether said client device is critical; (2) determining a desired traffic load for the access point; and (3) allocating shaper intervals to each of the plurality of client devices based on the client device type classification of each of the plurality of client devices and the desired traffic load of the access point, wherein the classifying, determining, and allocating are performed by the access point.

Applicant respectfully submits that the cited and relied upon Kowalski fails to disclose each and every claimed aspect as configured in Applicant's claim 1, thereby not resulting in the anticipation of those claims. In particular, and in rebuttal to arguments proffered on page 3 in the Final Office Action dated May 27, 2009, alleging Kowalski discloses ranking or categorizing devices, Kowalski states,

[0055] The scheduler of the invention incorporates a scheduling algorithm for implementing the method of the invention. This algorithm may be used, with only slight modifications which are evident to persons of ordinary skill in the art, if the scheduler is unaware of which flow the STA needs to transmit. The scheduler needs only to be aware of the net amount of time needed to be allocated to STAs to maintain their TSPECs. The scheduling algorithm (1) attempts to allocate TXOPs for each flow for each station uniformly over a Superframe; (2) allocates TXOPs to send at the negotiated rate; wherein (3) low delay/jitter traffic is to be allocated first, with, for the same delay/jitter specs, priority going to CBR traffic.

Thus, it is clear that Kowalski explicitly discloses a scheduling algorithm that attempts to allocate TXOPs for each flow for each station. That is, the TXOPs are allocated for the flows, not the devices (e.g., stations, STA). Further, the allocation of the scheduler attempts to allocate the TXOPs such that low delay/jitter traffic is allocated first, prior to other traffic. Thus, it is the data *traffic* that is the basis for the TXOP allocation. Clearly, Kowalski does not disclose the TXOPs are allocated based on any classification of the stations. The TXOP allocations are, as specifically disclosed by Kowalski, allocated based on the traffic flows, and not any classification of the stations that generate the flows.

Furthermore, Kowalski does not disclose classifying each of the plurality of client devices into one of a plurality of client device types based on, at least, a measurement of current and previous traffic loads for each of said plurality of client devices, and a determination of whether said client device is critical. In particular, it is not seen where Kowalski discloses the basis for the classification of the plurality of client devices is based on both current and previous traffic loads for each of said plurality of client devices.

While a composite schedule may be produced based on allocations to individual STAs as stated at Kowalski paragraph [0071], there is still no disclosure of classifying the STAs based on both current and previous traffic loads for each of said plurality of

client devices. The allocation of flows to a device is not the same the claimed aspect of classifying the client devices.

It is also noted that in the example application discussed at paragraph [0083], the need to "have TXOPs located twice per interval" is based on the "flows allocated", and not a classification of the STAs. Paragraph [0084] *assumes* the second station in the example can tolerate the example jitter and delay. That is, it is "assumed" the second station can tolerate the given jitter and delay. No decision or action or determination is made based on any classification of the second station since an assumption is explicitly made regarding the capability of the second station.

Accordingly, Kowalski does not disclose the claimed aspect classifying each of the plurality of client devices into one of a plurality of client device types based on, at least, a measurement of current and previous traffic loads for each of said plurality of client devices, and a determination of whether said client device is critical.

Regarding the claimed aspect of determining a desired traffic load for the access point, Applicant notes that Kowalski discloses it is assumed "there is sufficient link margin to support TSPEC/allocation. The scheduler will not check for this margin." (Kowalski, paragraph [0050]) Applicant submits that the Kowalski reference makes a number of assumptions throughout without any disclosure or even reference to the claimed aspect of determining a desired traffic load for the access point.

Since Kowalski fails to disclose or even suggest the claimed aspect of "classifying each of the plurality of client devices into one of a plurality of client device types" as clearly demonstrated hereinabove, it logically follows that Kowalski also fails to disclose the claimed aspect of "allocating shaper intervals to each of said plurality of client devices based on the client device type classification of each of said plurality of client devices". Hereto, Kowalski is shown not to disclose another aspect of claims 1, 20, and 21.

Accordingly, Applicant respectfully submits that claim 1 is not anticipated by the cited and relied upon Kowalski. Therefore, Applicant respectfully requests the reconsideration and withdrawal of the rejection of claim 1, as well as claims 7 – 16, and 18 depending therefrom. Applicant further requests the allowance of claims 1, 7 – 16, and 18.

Claim 20 was rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. U.S. Patent No. 7,154,877 B2. This rejection is traversed.

Regarding the claimed aspect of determining a desired traffic load for the access point, Applicant notes that Le is silent with respect to a traffic load for the access point (e.g., 115'). Instead, Le discloses and discusses polling a wireless device and recording upload activity of the wireless device. However, no disclosure is made regarding a desired traffic load of the access point in communication with the wireless device.

Accordingly, Applicant respectfully submits that claim 20 is not anticipated by the cited and relied upon Le. Therefore, Applicant respectfully requests the reconsideration and withdrawal of the rejection of claim 20, as well as the allowance of same.

**Claim Rejections – 35 USC § 103**

Claims 2 – 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kowalski '563 in view of Gu et al. (Daqing Gu and Jinyun Zhang, "QoS Enhancements in IEEE802.11 Wireless Local Area Network", IEEE, June 2003, Pages 120-124). This rejection is traversed.

Inasmuch as the cited Kowalski fails to disclose or suggest that for which it was relied upon for disclosing as described in detail hereinabove, Applicant respectfully submits that the combination of Kowalski and Gu does not render claims 2 - 5 obvious under 35 USC 103(a). In particular, the cited and relied upon Gu does not rectify the deficiencies of Kowalski.

Accordingly, Applicant respectfully submits that claims 2 – 5 are patentable over Kowalski and Gu under 35 USC 103(a) for at least the reasons stated hereinabove. Therefore, the reconsideration and withdrawal of the rejection of claims 2 – 5 are respectfully requested, as well as the allowance of same.

Claims 6 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kowalski '563 in view of Awater et al. U.S. Publication No. 2007/0109980; and Claim 21 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kowalski '563 in view of Del Prado Pavon et al. U.S. Publication No. 2004/0047351. These rejections are traversed.

Applicant respectfully submits that the cited and relied upon Kowalski fails to disclose or suggest that for which it was cited as described in detail hereinabove. Furthermore, Applicant respectfully submits that the combination of Kowalski and Atwater or the combination of Kowalski and Del Prado Pavon does not render claims 6, 17, and 21 obvious under 35 USC 103(a). In particular, the cited and relied upon combinations of Kowalski and Atwater and Kowalski and Del Prado Pavon do not rectify or otherwise overcome the deficiencies of Kowalski.

Accordingly, Applicant respectfully submits that claims 6, 17, and 21 are patentable under 35 USC 103(a). Therefore, the reconsideration and withdrawal of the rejection of claims 6, 17, and 21 are respectfully requested, as well as the allowance of same.

### CONCLUSION

Accordingly, Applicant respectfully requests allowance of the pending claims.

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